

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Chen et al

Patent No.: 7,262,133 B2

Issued: August 28, 2007

Serial No.: 10/741.824

Filed: December 19, 2003

For: ENHANCEMENT OF
COPPER LINE
RELIABILITY USING THIN
ALD TAN FILM TO CAP
THE COPPER LINE

Certificate of Correction Branch
Commissioner for Patents
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Dear Sir;

REQUEST FOR CERTIFICATE OF CORRECTION

Attached is a Certificate of Correction for correcting several errors in the references section of the printed patent.

Applicants submit that the errors mentioned above were not by the applicant, but were made during the printing of the patent.

Respectfully submitted,

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UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 7,262,133 B2

Page 1 of 1

APPLICATION NO. : 10/741,824

DATED : August 28, 2007

INVENTOR(S) : Ling Chen; Mei Chang

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

In the references cited, U S Patents Documents:

Delete: - 4,859,307 8/1989 Nishizawa et al -

Insert: - 4,859,625 8/1989 Nishizawa et al -

Add :

- US 5,904,565 5/1999 Nguyen et al -

- 20020003403A1 1/2002 Ghosh et al -

- JP2001-240972 9/2001 Kazue et al -

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United States Patent [19]

Matsumoto

[11] Patent Number:

4,859,625

[45] Date of Patent:

Aug. 22, 1989

[54] METHOD FOR EPITAXIAL GROWTH OF COMPOUND SEMICONDUCTOR USING MOCVD WITH MOLECULAR LAYER EPITAXY

[75] Inventor: Junichi Nishizawa, Miyagi-Ken Japan; Toru Kurabayashi, Miyagi-Ken Japan; Hirotoshi Abe, Tokyo Japan; Fumio Matsumoto, Miyagi, Japan

[73] Assignee: Research Development Corporation of Japan, Junichi Nishizawa and Oki Electric Industry Co., Ltd., Japan

[21] Appl. No.: 123,497

[22] Filed: Nov. 20, 1987

[30] Foreign Application Priority Data

Nov. 22, 1986 [JP] Japan 61-277829

[51] Int. Cl.⁴ H01L 21/205

[52] U.S. Cl. 437/81; 148/DIG. 25; 148/DIG. 41; 148/DIG. 48; 148/DIG. 57; 148/DIG. 72; 148/DIG. 110; 148/DIG. 94; 156/613; 437/19; 437/111; 437/133; 437/173; 437/936; 437/942; 437/963; 427/53.1

[58] Field of Search 148/DIG. 4; 21, 25, 148/41, 48, 56, 65, 71, 72, 94, 110, 160, 169, 57; 156/610-614; 427/53.1, 54.1; 437/19, 81, 107, 108, 110, 111, 133, 173, 936, 942, 949, 963

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Assistant Examiner—William Bunch
Attorney, Agent, or Firm—Darby & Darby

[57] ABSTRACT

A method for epitaxial growth of compound semiconductor containing three component elements, two component elements thereof being the same group elements, in which three kinds of compound gases each containing different one of the three component elements are cyclically introduced, under a predetermined pressure for a predetermined period respectively, onto a substrate enclosed in an evacuated crystal growth vessel so that a single crystal thin film of the compound semiconductor is formed on the substrate.

22 Claims, 18 Drawing Sheets

